

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-31 (canceled)

32 (currently amended). A method for detecting the presence or absence of an RNA in a biological sample suspected of containing said RNA comprising contacting said sample with a compound of claim 20, comprising a nucleoside comprising a ribofuranosyl sugar portion and a base portion, wherein said nucleoside bears at a 2'-O-position or a 3'-O-position a substituent having formula:



or



where:

R_A is alkyl having from 1 to about 10 carbon atoms or (CH₂-CH₂-O)_x;

R_{1a} is alkenyl having 2 to about 10 carbon atoms;

R_{1b} and R_{1c}, independently, are H, R₂, R_A, an amine protecting group or have formula R_A-N(R_{1d})(R_{1e}), C(X)-R₂, C(X)-R_A-R₂, C(X)-Q-R_A-R₂, or C(X)-Q-R₂;

R_{1d} and R_{1e}, independently, are H, R₂, R_A, an amine protecting group or have formula C(X)-R₂, C(X)-R_A-R₂, C(X)-Q-R_A-R₂, or C(X)-Q-R₂;

R₂ is a steroid molecule, a reporter molecule, a lipophilic molecule, a reporter enzyme, a peptide, a protein, includes folic acid, or has formula -Q-(CH₂CH₂-Q)_x-R₃;

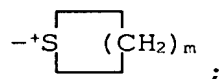
X is O or S;

each Q is, independently, is NH, O, or S;

x is 1 to about 200;

R₃ is H, R_A, C(O)OH, C(O)OR_A, C(O)R₄, R_A-N₃, or R_A-NH₂;

R₄ is Cl, Br, I, SO₂R₅ or has structure:

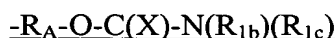


m is 2 to 7; and

R₅ alkyl having 1 to about 10 carbon atoms.

33 (canceled)

34 (currently amended). A method for detecting the presence or absence of an RNA in a biological sample suspected of containing said RNA comprising contacting said sample with a compound of ~~claim 22~~ comprising a nucleoside comprising a ribofuranosyl sugar portion and a pyrimidine base portion, wherein said base portion bears at its 5-position a substituent having formula:



where:

R_A is alkyl having from 1 to about 10 carbon atoms or (CH₂-CH₂-Q)_x;

R_{1b} and R_{1c}, independently, are H, R₂, R_A, an amine protecting group or have formula R_A-N(R_{1d})(R_{1e}), C(X)-R₂, C(X)-R_A-R₂, C(X)-Q-R_A-R₂, or C(X)-Q-R₂;

R_{1d} and R_{1e}, independently, are H, R₂, R_A, an amine protecting group or have formula C(X)-R₂, C(X)-R_A-R₂, C(X)-Q-R_A-R₂, or C(X)-Q-R₂;

R₂ is a steroid molecule, a reporter molecule, a lipophilic molecule, a reporter enzyme, a peptide, a protein, includes folic acid, or has formula -Q-(CH₂CH₂-Q)_x-R₃;

X is O or S;

each Q is, independently, is NH, O, or S;

x is 1 to about 200;

R₃ is H, R_A, C(O)OH, C(O)OR_A, C(O)R₄, R_A-N₃, or R_A-NH₂;

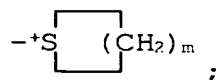
R₄ is Cl, Br, I, SO₂R₅ or has structure:

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PATENT

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m is 2 to 7; and

R₅ alkyl having 1 to about 10 carbon atoms.